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Serial No. 10/007,861LISTING OF THE CLAIMS

1. **(Previously Presented)** A process for the production of an aqueous sol containing silica-based particles which comprises the sequential steps of:

(a) acidifying an aqueous silicate solution to a pH of from 1 to 4 to form an acid sol;

(b) alkalisating in a first alkalisation step the acid sol, while keeping an SiO₂ content within the range of from 4.5 to 8% by weight, to form an alkalisated sol having a pH of at least 7;

(c) allowing particle growth of the alkalisated sol for at least 10 minutes; and

(d) alkalinizing in a second alkalization step the obtained sol to a pH of at least 10.0 by adding alkali selected from the group consisting of lithium hydroxide, sodium hydroxide or potassium hydroxide; an aqueous silicate solution, or a mixture thereof.

2 – 25. **Cancelled.**

26. **(Previously Presented)** The process according to claim 1, wherein the process further comprises:

(e) concentrating the alkalisated sol obtained according to (b).

27. **(Previously Presented)** The process according to claim 1, wherein the process further comprises:

(e) concentrating the alkalisated sol subjected to particle growth obtained according to (c).

28. **(Previously Presented)** The process according to claim 1, wherein the process further comprises:

(e) concentrating the alkalisated sol obtained according to (d).

29. **(Previously Presented)** The process according to claim 1, wherein the aqueous sol obtained in the process has a specific surface area of at least 90 m²/g aqueous sol.
30. **(Previously Presented)** The process according to claim 26, wherein the aqueous sol obtained in the process has a specific surface area of at least 95 m²/g aqueous sol.
31. **(Previously Presented)** The process according to claim 1, wherein the alkalisation according to (b) and (d) is carried out by means of an aqueous silicate solution.
32. **(Previously Presented)** The process according to claim 1, wherein the particle growth according to (c) is carried out at a temperature within the range of from 35 to 95°C.
33. **(Previously Presented)** The process according to claim 1, wherein the alkalisation according to (d) produces a sol having a molar ratio of SiO₂ to M₂O, where M is alkali metal or ammonium, within the range of from 15:1 to 30:1 and a pH of at least 10.6.
34. **(Previously Presented)** The process according to claim 1, wherein the process further comprises addition of an aluminium-containing compound, a boron-containing compound or a mixture thereof.
35. **(Previously Presented)** The process according to claim 1, wherein the silica-based particles obtained in the process have a specific surface area of at least 550 m²/g SiO₂.
36. **(Withdrawn)** An aqueous sol containing silica-based particles obtained by a process which comprises:

- (a) acidifying an aqueous silicate solution to a pH of from 1 to 4 to form an acid sol;
- (b) alkalising the acid sol at an SiO_2 content within the range of from 4.5 to 8% by weight to form an alkalised sol having a pH of at least 7;
- (c) allowing particle growth of the alkalised sol for at least 10 minutes; and
- (d) alkalising the obtained sol to a pH of at least 10.0.

37. **(Withdrawn)** The aqueous sol according to claim 36, wherein the process further comprises:

- (e) concentrating the sol obtained according to (c).

38. **(Withdrawn)** The aqueous sol according to claim 36, wherein the process further comprises:

- (e) concentrating the sol obtained according to (d).

39. **(Withdrawn)** The aqueous sol according to claim 37, wherein it has a specific surface area of at least $95 \text{ m}^2/\text{g}$ aqueous sol.

40. **(Withdrawn)** The aqueous sol according to claim 36, wherein the aqueous sol has a molar ratio of SiO_2 to M_2O , where M is alkali metal or ammonium, within the range of from 15:1 to 30:1 and a pH of at least 10.6.

41. **(Withdrawn)** The aqueous sol according to claim 36, wherein the sol comprises an aluminum-containing compound, a boron-containing compound or a mixture thereof.

42. **(Withdrawn)** The aqueous sol according to claim 36, wherein the silica-based particles have a specific surface area of at least $550 \text{ m}^2/\text{g}$ SiO_2 .

43. **(Previously Presented)** A process for the production of an aqueous sol containing silica-based particles which comprises the sequential steps of:

- (a) acidifying an aqueous silicate solution to a pH of from 1 to 4 to form an acid sol;
- (b) alkalisng in a first alkalisation step the acid sol, while keeping an SiO₂ content within the range of from 4.5 to 8% by weight, to form an alkalisd sol;
- (c) heat-treating the alkalisd sol at a temperature of at least 30°C; and
- (d) alkalisng in a second alkalization step the heat-treated sol to a pH of at least 10.0 by adding alkali selected from the group consisting of lithium hydroxide, sodium hydroxide, or potassium hydroxide; an aqueous silicate solution, or a mixture thereof.

44. (Previously Presented) The process according to claim 43, wherein the process further comprises:

- (e) concentrating the alkalisd sol obtained according to step (b).

45. (Previously Presented) The process according to claim 43, wherein the process further comprises:

- (e) concentrating the alkalisd sol obtained according to step (c).

46. (Previously Presented) The process according to claim 43, wherein the process further comprises:

- (e) concentrating the alkalisd sol obtained according to step (d).

47. (Previously Presented) The process according to claim 43, wherein the aqueous sol obtained in the process has a specific surface area of at least 90 m²/g aqueous sol.

48. (Previously Presented) The process according to claim 43, wherein the aqueous sol obtained in the process has a specific surface area of at least 95 m²/g aqueous sol.

49. **(Previously Presented)** The process according to claim 43, wherein the alkalisation according to (b) and (d) is carried out by means of an aqueous silicate solution.

50. **(Previously Presented)** The process according to claim 43, wherein the heat-treatment according to (c) is carried out for 20 to 240 minutes.

51. **(Previously Presented)** The process according to claim 43, wherein the alkalisation according to (d) produces a sol having a molar ratio of SiO_2 to M_2O , where M is alkali metal or ammonium, within the range of from 15:1 to 30:1 and a pH of at least 10.6.

52. **(Previously Presented)** The process according to claim 43, wherein the process further comprises addition of an aluminum-containing compound, a boron-containing compound or a mixture thereof.

53. **(Previously Presented)** The process according to claim 43, wherein the silica-based particles obtained in the process have a specific surface area of at least $550 \text{ m}^2/\text{g SiO}_2$.

54. **(Withdrawn)** An aqueous sol containing silica-based particles obtained by a process comprising:

- (a) acidifying an aqueous silicate solution to a pH of from 1 to 4 to form an acid sol;
- (b) alkalising the acid sol at an SiO_2 content within the range of from 4.5 to 8% by weight to form an alkalised sol;
- (c) heat-treating the alkalised sol at a temperature of at least 30°C ; and
- (d) alkalising the heat-treated sol to a pH of at least 10.0.

55. **(Withdrawn)** The aqueous sol according to claim 54, wherein the process further comprises:

- (e) concentrating the sol obtained according to (c).

56. (Withdrawn) The aqueous sol according to claim 54, wherein the process further comprises:

(e) concentrating the sol obtained according to (d).

57. (Withdrawn) The aqueous sol according to claim 54, wherein it has a specific surface area of at least $95 \text{ m}^2/\text{g}$ aqueous sol.

58. (Withdrawn) The aqueous sol according to claim 54, wherein it has a molar ratio of SiO_2 to M_2O , where M is alkali metal or ammonium, within the range of from 15:1 to 30:1 and a pH of at least 10.6.

59. (Withdrawn) The aqueous sol according to claim 54, wherein it comprises an aluminum-containing compound, a boron-containing compound or a mixture thereof.

60. (Withdrawn) The aqueous sol according to claim 54, wherein the silica-based particles have a specific surface area of at least $550 \text{ m}^2/\text{g}$ SiO_2 .

61. (Previously Presented) A process for the production of an aqueous sol containing silica-based particles which comprises:

(a) acidifying an aqueous silicate solution to a pH of from 1 to 4 to form an acid sol;

(b) alkalisng in a first alkalisation step the acid sol, while keeping an SiO_2 content within the range of from 4.5 to 8% by weight, to form an alkalised sol;

(c) heat-treating the alkalised sol obtained according to (b) at a temperature within the range of from 35 to 95°C for 20 to 240 minutes;

(d) alkalizing in a second alkalization step the heat-treated sol obtained according to (c) to a pH of at least 10.0 and a molar ratio of SiO_2 to M_2O , where M is alkali metal or ammonium, within the range of from 15:1 to 30:1 by adding alkali, an aqueous silicate solution, or a mixture thereof;

(e) concentrating the sol obtained according to (c) or (d); and

(f) providing an aqueous sol which has a specific surface area of at least 95 m²/g aqueous sol and contains silica-based particles which have a specific surface area of at least 550 m²/g SiO₂.

62. (Previously Presented) The process according to claim 61, wherein the alkalisation according to step (b) and step (d) is carried out by means of an aqueous silicate solution.

63. (Previously Presented) The process according to claim 61, wherein the alkalisation according to (d) produces a pH of at least 10.6.

64. (Withdrawn) An aqueous sol containing silica-based particles obtained by a process which comprises:

- (a) acidifying an aqueous silicate solution to a pH of from 1 to 4 to form an acid sol;
- (b) alkalising the acid sol at an SiO₂ content within the range of from 4.5 to 8% by weight to form an alkalisied sol;
- (c) heat-treating the alkalisied sol at a temperature within the range of from 35 to 95°C for 20 to 240 minutes;
- (d) alkalising the heat-treated sol to a pH of at least 10.0 and a molar ratio of SiO₂ to M₂O, where M is alkali metal or ammonium, within the range of from 15:1 to 30:1;
- (e) concentrating the sol obtained according to step (c) or step (d); and
- (f) providing an aqueous sol which has a specific surface area of at least 95 m²/g aqueous sol and contains silica-based particles which have a specific surface area of at least 550 m²/g SiO₂.

65. (Withdrawn) The aqueous sol according to claim 64, wherein it has a pH of at least 10.6.

66 - 72. (Cancelled)

73. **(Previously Presented)** The process according to claim 1, wherein said SiO_2 content is kept within the range of from 5.0 to 7.5% by weight in step (b).
74. **(Previously Presented)** The process according to claim 73, wherein the alkalization according to (d) produces a sol having an S-value within the range of 20 to 40%.
75. **(Previously Presented)** The process according to claim 1, wherein the alkalization according to (b) produces a sol having a molar ratio of SiO_2 to M_2O , where M is alkali metal or ammonium, within the range of from 20:1 to 80:1.
76. **(Previously Presented)** The process according to claim 75, wherein the alkalization according to (b) produces a sol having a molar ratio of SiO_2 to M_2O , where M is alkali metal or ammonium, within the range of from 30:1 to 70:1.
77. **(Previously Presented)** The process according to claim 76, wherein the alkalization according to (d) produces a sol having a molar ratio of SiO_2 to M_2O , where M is alkali metal or ammonium, within the range of from 12:1 to 40:1.
78. **(Previously Presented)** The process according to claim 77, wherein the alkalization according to (d) produces a sol having a molar ratio of SiO_2 to M_2O , where M is alkali metal or ammonium, within the range of from 15:1 to 30:1.
79. **(Previously Presented)** The process according to claim 78, wherein the alkalization according to (d) produces a sol having an S-value within the range of 10 to 45%.
80. **(Previously Presented)** The process according to claim 43, wherein said SiO_2 content is kept within the range of from 5.0 to 7.5% by weight in step (b).

81. **(Previously Presented)** The process according to claim 80, wherein the alkalization according to (d) produces a sol having an S-value within the range of 20 to 40%.

82. **(Previously Presented)** The process according to claim 43, wherein the alkalization according to (b) produces a sol having a molar ratio of SiO_2 to M_2O , where M is alkali metal or ammonium, within the range of from 20:1 to 80:1.

83. **(Previously Presented)** The process according to claim 82, wherein the alkalization according to (b) produces a sol having a molar ratio of SiO_2 to M_2O , where M is alkali metal or ammonium, within the range of from 30:1 to 70:1.

84. **(Previously Presented)** The process according to claim 83, wherein the alkalization according to (d) produces a sol having a molar ratio of SiO_2 to M_2O , where M is alkali metal or ammonium, within the range of from 12:1 to 40:1.

85. **(Previously Presented)** The process according to claim 84, wherein the alkalization according to (d) produces a sol having a molar ratio of SiO_2 to M_2O , where M is alkali metal or ammonium, within the range of from 15:1 to 30:1.

86. **(Previously Presented)** The process according to claim 85, wherein the alkalization according to (d) produces a sol having an S-value within the range of 10 to 45%.

87. **(Previously Presented)** The process according to claim 61, wherein said SiO_2 content is kept within the range of from 5.0 to 7.5% by weight in step (b).

88. **(Previously Presented)** The process according to claim 87, wherein the alkalization according to (d) produces a sol having an S-value within the range of 20 to 40%.

89. **(Previously Presented)** The process according to claim 61, wherein the alkalization according to (b) produces a sol having a molar ratio of SiO_2 to M_2O , where M is alkali metal or ammonium, within the range of from 20:1 to 80:1.

90. **(Previously Presented)** The process according to claim 89, wherein the alkalization according to (b) produces a sol having a molar ratio of SiO_2 to M_2O , where M is alkali metal or ammonium, within the range of from 30:1 to 70:1.

91. **(Previously Presented)** The process according to claim 90, wherein the alkalization according to (d) produces a sol having an S-value within the range of 10 to 45%.